gauges, pressure gauges, automatic pressure-relief valves, blowdown piping, and other safety devices approved by the American Society of Mechanical Engineers to protect against hazards from overpressure, flameouts, fuel interruptions and low water level, all as required by the appropriate sections, chapters and appendices listed in paragraphs (b) (1) and (2) of this section.

(b) These gauges, devices and piping shall be designed, installed, operated, maintained, repaired, altered, inspected, and tested by inspectors holding a valid National Board Commission and in accordance with the following listed sections, chapters and appendices:

(1) The ASME Boiler and Pressure Vessel Code, 1977, Published by the American Society of Mechanical Engineers.

SECTION AND TITLE

I Power Boilers.
II Material Specifications—Part A—Ferrous.
II Material Specifications—Part B—Nonferrous.
II Material Specifications—Part C—Welding Rods, Electrodes, and Filler Metals.
IV Heating Boilers
V Nondestructive Examination
VI Recommended Rules for Care and Operation of Heating Boilers
VII Recommended Rules for Care of Power Boilers

(2) The National Board Inspection Code, a Manual for Boiler and Pressure Vessel Inspectors, 1979, published by the National Board of Boiler and Pressure Vessel Inspectors.

CHAPTER AND TITLE

I Glossary of Terms
II Inspection of Boilers and Pressure Vessels
III Repairs and Alterations to Boiler and Pressure Vessels by Welding
IV Shop Inspection of Boilers and Pressure Vessels
V Inservice Inspection of Pressure Vessels by Authorized Owner-User Inspection Agencies

APPENDIX AND TITLE

A Safety and Safety Relief Valves
B Non-ASME Code Boilers and Pressure Vessels
C Storage of Mild Steel Covered Arc Welding Electrodes
D-R National Board ''R'' (Repair) Symbol Stamp
D-VR National Board ''VR'' (Repair of Safety and Safety Relief Valve) Symbol Stamp
D-VR1 Certificate of Authorization for Repair Symbol Stamp for Safety and Safety Relief Valves
D-VR2 Outline of Basic Elements of Written Quality Control System for Repairers of ASME Safety and Safety Relief Valves
D-VR3 Nameplate Stamping for ''VR''
E Owner-user Inspection Agencies
F Inspection Forms

(c) Records of inspections and repairs shall be kept in accordance with the requirements of the ASME Boiler and Pressure Vessel Code and the National Board Inspection Code. The records shall be made available to the Secretary or his authorized representative.

(d) Sections of the ASME Boiler and Pressure Vessel Code, 1977, listed in paragraph (b)(1) of this section, and chapters and appendices of the National Board Inspection Code, 1979, listed in paragraph (b)(2) of this section, are incorporated by reference and made a part of this standard. These publications may be obtained from the publishers, the American Society of Mechanical Engineers, 22 Law Drive, P.O. Box 2900, Fairfield, New Jersey 07007, Phone: 800–843–2763 (toll free); *http://www.asme.org*, and the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229. The publications may be examined at any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration.

[50 FR 4054, Jan. 29, 1985, as amended at 71 FR 16667, Apr. 3, 2006]

Subpart M—Machinery and Equipment

SOURCE: 53 FR 32521, Aug. 25, 1988, unless otherwise noted.

§56.14000 Definitions.

The following definitions apply in this subpart.

Travelway. A passage, walk, or way regularly used or designated for persons to go from one place to another.

[53 FR 32521, Aug. 25, 1988, as amended at 69 FR 38840, June 29, 2004]

SAFETY DEVICES AND MAINTENANCE REQUIREMENTS

§ 56.14100 Safety defects; examination, correction and records.

(a) Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift.

(b) Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons.

(c) When defects make continued operation hazardous to persons, the defective items including self-propelled mobile equipment shall be taken out of service and placed in a designated area posted for that purpose, or a tag or other effective method of marking the defective items shall be used to prohibit further use until the defects are corrected.

(d) Defects on self-propelled mobile equipment affecting safety, which are not corrected immediately, shall be reported to and recorded by the mine operator. The records shall be kept at the mine or nearest mine office from the date the defects are recorded, until the defects are corrected. Such records shall be made available for inspection by an authorized representative of the Secretary.

§ 56.14101 Brakes.

(a) *Minimum requirements.* (1) Self-propelled mobile equipment shall be equipped with a service brake system capable of stopping and holding the equipment with its typical load on the maximum grade it travels. This standard does not apply to equipment which is not originally equipped with brakes unless the manner in which the equipment is being operated requires the use of brakes for safe operation. This standard does not apply to rail equipment.

(2) If equipped on self-propelled mobile equipment, parking brakes shall be capable of holding the equipment with its typical load on the maximum grade it travels.

(3) All braking systems installed on the equipment shall be maintained in functional condition.

(b) *Testing.* (1) Service brake tests shall be conducted when an MSHA inspector has reasonable cause to believe that the service brake system does not function as required, unless the mine operator removes the equipment from service for the appropriate repair;

(2) The performance of the service brakes shall be evaluated according to Table M–1.

TABLE M–1

Gross vehicle weight lbs.	Equipment speed, MPH										
	10	11	12	13	14	15	16	17	18	19	20
Service Brake Maximum Stopping Distance—Feet											
0–36000	34	38	43	48	53	59	64	70	76	83	89
36000–70000	41	46	52	58	62	70	76	83	90	97	104
70000–140000	48	54	61	67	74	81	88	95	103	111	119
140000–250000	56	62	69	77	84	92	100	108	116	125	133
250000–400000	59	66	74	81	89	97	105	114	123	132	141
Over 400000	63	71	78	86	94	103	111	120	129	139	148

Stopping distances are computed using a constant decleration of 9.66 FPS^2 and system response response times of .5.1, 1.5, 2, 2.25 and 2.5 seconds for each increasing weight category respectively. Stopping distance values include a one-second operator response time.

TABLE M–2—THE SPEED OF A VEHICLE CAN BE DETERMINED BY CLOCKING IT THROUGH A 100-FOOT MEASURED COURSE AT CONSTANT VELOCITY USING TABLE M–2. WHEN THE SERVICE BRAKES ARE APPLIED AT THE END OF THE COURSE, STOPPING DISTANCE CAN BE MEASURED AND COMPARED TO TABLE M–1.

Miles per hour	10	11	12	13	14	15	16	17	18	19	20
Seconds Required to Travel 100 Feet	6.8	6.2	5.7	5.2	4.9	4.5	4.3	4.0	3.8	3.6	3.4